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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/885,683	06/20/2001	Mitchell Simmons Cohen	ROC920000148US1	6372

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EXAMINER	
BELLO, AGUSTIN	
ART UNIT	**PAPER NUMBER**
2633	8

DATE MAILED: 08/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/885,683	Applicant(s) COHEN ET AL.	
	Examiner Agustin Bello	Art Unit 2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 June 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12 and 14-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-11* is/are allowed.

6)☒ Claim(s) *12 and 14-19* is/are rejected.

7)☒ Claim(s) *12 and 14-19* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 14-19 are objected to because of the following informalities: claims 14-19 depend from cancelled claim 13. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 12 and 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Imakawa (U.S. Patent No. 5,671,077) in view of Kerklaan (U.S. Patent No. 5,808,769).

Regarding claim 12, Imakawa teaches a transceiver optical subassembly comprising: a printed circuit board (reference numeral 11 in Figure 7) having a plurality of electrical connection points thereon; a lead frame (reference numeral 12 in Figure 15 and reference numeral 13 in Figure 17b) comprising a plurality of electrical leads connected to said connection points (as seen by protruding leads from board 11 in Figure 7); a solid-state laser (reference numeral 12 in Figure 7); a first photo-detector (reference numeral 16 in Figure 7); said laser and said first photo-detector each connected to selected ones of said plurality of electrical leads (inherent); and said lead frame, said laser and said first photo-detector enclosed by a cover member (reference numeral 19 in Figure 10), said cover member further comprising a partially reflective/partially transmissive inclined planar surface (reference numeral 20 in Figure 7) disposed in a path of emitted light from said laser and a partially cylindrical surface (reference

numeral 23 in Figure 37A) disposed in a path of light emanating from said planar surface, focusing and reflecting said reflected light onto a photo-sensitive surface of said first photodetector (reference numeral 13A in Figure 37A) , whereby electrical signals supplied to said laser through said electrical leads control the lasing of said laser (column 8 lines 65-67) and said emitted laser light is divided with a first beam projecting outwardly from said cover member and a second beam of said laser light deflected and focused onto said first photo-sensitive surface (as seen in Figure 7), providing an electronic representation of optical signals created by said laser (column 9 lines 15-21), wherein said plane surface (reference numeral 20 in Figure 7) is disposed at an angle which is either acute or obtuse to the axis of said laser beam (as seen in Figure 7). Imakawa differs from the claimed invention in that Imakawa fails to specifically teach that the cover member is a molded transparent cover which defines the planar surface, the surfaces being reflective, partially reflective, or partially transmissive. However, such molded covers are well known in the art. Kerklaan, in the same field of optical communication, teaches a cover member (reference numeral 18 in Figure 5) that forms a planar surface, is partially reflective and partially transmissive, and forms a cover over a transceiver device (Figure 5). One skilled in the art would have been motivated to employ a cover member like that taught by Kerklaan in order to form a convertible transceiver capable of collimated or diffused light (column 2 lines 25-27), thereby enabling "point and shoot" transmission (column 2 lines 31-32). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to form the cover member of Imakawa of molded transparent material, the cover being partially reflective or partially transmissive as taught by Kerklaan.

Regarding claim 14, Imakawa teaches the transceiver optical subassembly of claim 2 further comprising a pair of lenses (reference numeral 83, 84 in Figure 41) disposed in and aligned with said light path of said light passed thru said planar surface.

Regarding claim 15, Imakawa teaches the transceiver optical subassembly of claim 3 further comprising a cover (structure indicated by reference numeral 19, 30 in Figure 7) enclosing a transparent member (reference numeral 29 in Figure 7) having surfaces, said surfaces perpendicular to a central ray of said light exiting said inclined surface. Imakawa differs from the claimed invention in that Imakawa fails to specifically teach that the transparent member has a pair of parallel surfaces. However, transparent members with parallel surfaces are very well known in the art. One skilled in the art would clearly have recognized that it would have been possible to use a transparent member with a pair of parallel surface without departing from the scope or spirit of the invention of Imakawa. One skilled in the art would have been motivated to use a transparent member with a pair of parallel surfaces in order to reduce the overall protrusion length of the module (e.g. a flat lens will protrude less in space than the partially curved lens of Imakawa). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to use a transparent member with a pair of parallel surfaces in the device of Imakawa without departing from the scope or spirit of the invention.

Regarding claim 16, Imakawa teaches at least one alignment member (reference numeral 32 in Figure 10) compatibly positioned to engage a mating plug (reference numeral 18 in Figure 10), whereby said lenses may be aligned with optical elements of said plug (inherent in that optical assembly and lenses 83, 84 are aligned).

Regarding claim 17, Imakawa teaches that at least one alignment member comprises a pair of pins disposed within and extending from said optical subassembly (e.g. pair of screws extend within and extend from the optical subassembly).

Regarding claim18, Imakawa teaches transceiver optical subassembly is assembled and sealed into a unitary structure (as seen in Figure 7).

Regarding claim 19, Imakawa teaches a photodetector for measuring the reflected light providing an electronic representation of optical signals created by the laser (column 9 lines 15-21). Imakawa differs from the claimed invention in that Imakawa fails to specifically teach a second photodetector. However, one skilled in the art would clearly have recognized that in order to both receive an external optical signal and monitor the transmitted optical signal a second photodetector would have been beneficial. Photodetectors are well known in the art and readily available to those skilled in the art. Furthermore, Kerklaan teaches that a plurality of photodetectors can be accommodated under a transparent cover member (reference numeral 10 in Figure 5). One skilled in the art would have been motivated to employ a second photodetector in order to separate receiving and monitoring functions. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to include a second photodetector in the system of Imakawa as taught by Kerklaan.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Carpentier and Stuart teach relevant art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Agustin Bello whose telephone number is (703)308-1393. The examiner can normally be reached on M-F 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (703)305-4729. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Agustin Bello
Examiner
Art Unit 2633

AB

M. R. SEDIGHIAN
PRIMARY EXAMINER